		ATTY DOC	Y DOCKET NO: 3080.113(DIV II) SERIAL NO.		LINO.	0.				
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(Use several sheets if necessary) Page 1 of 3			FILING DA	G DATE: <b>Herewith</b> GROUP:			P:			
			U.S. PATE	NT DOCUMENTS						
Ex. Initial	DOCUMENT NUMBER	DATE		NAME		CLASS	SUBCLASS	FILING	DATE	
140	3,014,177	12/19/61	HU	UNGERFORD, ET AL.		324/8		06/24/57		
W	3,187,252	06/01/65		HUNGERFORD		324/6		12/18/61		
YAN	3,808,520	04/30/74		RUNGE		324/6		04/04/73		
IIIN	4,302,722	11/24/81		GIANZERO		324/339		06/15/79		
LIW	4,536,714	08/20/85		CLARK		324/338		04/16/82		
IAN	4,651,101	03/17/87		BARBER, ET AL.		324/339		04/03/85		
IN	4,780,857	10/25/88		LYLE, ET AL.		367/35		12/02/87		
LIN	4,808,929	02/28/89		OLDIGS		324/339		05/19/87		
IN	RE 32,913	04/25/89		CLARK	CLARK		324/338		07/23/87	
LIW	4,873,488	10/10/89		BARBER, ET AL.	ARBER, ET AL.		324/339		11/18/86	
IN	4,940,943	07/10/90		BARTEL, ET AL.		324/338		04/19/88		
FOREIGN PATENT DOCUMENTS										
	DOCUMENT NUMBER	DATE		COUNTRY	С	LASS	SUBCLASS	TRANSL	ATION	
ШW	92402243.7	08/06/92	Eu	rropean Patent Office	G01V 3/12			YES	NO	
IN	97118854.5	10/29/97		rropean Patent Office		1V 3/30		YES	NO	
	OTHE	R DOCUMENT	S (Include A	uthor, Title, Date, Pertiner	t Pag	es, Etc.)	<u> </u>			
KIW	Zhu, T. and L. Brown, "Two-dimensional Velocity Inversion and Synthetic Seismogram Computation," GEOPHYSICS, Vol. 52, No. 1, January 1987; p. 37-49.									
IM	Bittar, M. and P. Rodney, 'The Effects of Rock Anisotropy on MWD Electromagnetic Wave Resistivity Sensors,' THE LOG ANALYST, January-February 1996, p. 20-30.									
IDN	Hagiwara, T., "A New Method to Determine Horizontal-Resistivity in Anisotropic Formations without Prior Knowledge of Relative Dip," 37th SPWLA Annual Logging Symposium, New Orleans, LA, 16-19 June 1996, p. 1-5 and three pages of figures.									
Bittar, M., P. Rodney, S. Mack, and R. Bartel, "A True Multiple Depth of Investigation Electromagnetic Wave Resistivity Sensor: Theory, Experiment and Prototype Field Test Results," SPE 22705, 66th Annual Technical Conference and Exhibition of the Society of Petroleum Engineers, Dallas, TX, October 6-9, 1991, p. 1-8 and ten pages of figures.										
EXAMINER /				DATE CONSIDERED						
1/8/84										
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(Use several sheets if necessary) Page 2 of 3			FILING DATE: Herewith	GROUP:					
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Ex. Initial	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING	DATE		
HU	4,962,490	10/09/90	LYLE, ET AL.	367/35		01/18/90			
1AD	4,980,643	12/25/90	GIANZERO, ET AL.	324/339		09/2	09/28/89		
AN	5,200,705	04/06/93	CLARK, ET AL.	324/338		10/31/91			
IN	5,230,386	07 <i>1</i> 27 <i>1</i> 93	WU, ET AL.	175/45		06/14/91			
MW	5,241,273	08/31/93	LULING	324/338		06/24/91			
IAN	5,278,507	01/11/94	BARTEL, ET AL.	324/338		06/14/91			
AW	5,329,448	07/12/94	ROSTHAL	364/422		08/07/91			
LW	5,389,881	02/14/95	BITTAR, ET AL.	324/338	<u> </u>	07/22/92			
Ani	5,508,616	04/16/96	SATO, ET AL.	324/343		11/20/93			
Hw	5,530,358	06/25/96	WISLER, ET AL.	324/338		01/25/94			
LAW	5,550,473	08/27/96	KLEIN	324/338		03/29/95			
LAW	5,656,930	08/12/97	HAGIWARA	324/339		02/0	02/06/95		
		<u> </u>	OREIGN PATENT DOCUMENTS						
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	<u> </u>								
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Mack, S., P. Rodney, and M. Bittar, *MWD tool accurately measures four resistivities,* reprint from OIL & GAS JOURNAL, week of May 25, 1992, p. 1-5.									
Bittar, M., P. Rodney, and W. Hendricks, "Invasion Profiling With a Multiple Depth of Investigation Electromagnetic Wave Resistivity Sensor," SPE 28425, 69th Annual Technical Conference and Exhibition of the Society of Petroleum Engineers, New Orleans, LA, 25-28 September 1994, p. 1-12 and eleven pages of figures.									
Luling, M.G., R. Rosthal, and F. Shray, "Processing and Modeling 2-MHz Resistivity Tools in Dipping, Laminated Anisotropic Formations," SPWLA 35th Annual Logging Symposium, 19-22 June 1994, p. 1-25.									
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LK	ent be		8/18/04						
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(Use several sheets if necessary) Page 3 of 3			FILING DATE: Herewith GROUP:						
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Ex. Initial	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE			
TAN	5,757,191	05/26/98	GIANZERO	324	339	12/09/94			
LAW	5,886,526	03/23/99	WU	324/33 8		06/16/97			
AN	6,044,325	03/28/00	CHAKRAVARTHY, ET AL.	702/7		07/21/98			
IAN	6,181,138	01/30/01	HAGIWARA, ET AL.	324	338	02/22/99			
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	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION			
OTHER DOCUMENTS (Include Author, Title, Date, Pertinent Pages, Etc.)									
Bonner, et al, "A New Generation of Electrode Resistivity Measurements for Formation Evaluation While Drilling," SPWLA 35th									
Annual Logging Symposium, 19-22 June, 1994.									
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